WEST Search History

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DATE: Monday, January 24, 2005

Hide?	Set Name	Query	Hit Count
		DB=PGPB,USPT,EPAB,JPAB,DWPI; PLUR=YES; OP=OR	
☐	L5	l1 not (l2 or l3)	13
☐	L4	L3 not l2	13
☐	L3	l1 and (pestivirus or flavivirus or BVDV or bovine adj viral adj diarrhea adj virus) same (chimer$ or substitut$ or replac$) same (Hepatitis adj C or HCV)	29
☐	L2	L1 and (BVDV or bovine adj viral adj diarrhea adj virus) same (Hepatitis adj C or HCV)	17
☐	L1	(pestivirus or flavivirus or BVDV or bovine adj viral adj diarrhea adj virus) same (chimeric or heterologous) and (E2 or envelope adj glycoprotein or structural) same (Hepatitis adj C or HCV)	43

END OF SEARCH HISTORY

STN

FILE 'HOME' ENTERED AT 10:36:09 ON 24 JAN 2005

L1 306 (PESTIVIRUS OR FLAVIVIRUS OR BOVINE (A) VIRAL (A) DIARRHEA (A) VIRUS OR BVDV) (S) (CHIMER? OR HETEROLOGOUS OR SUBSTITUT? OR REPLACE) (S) (STRUCTURAL OR GENE OR ENVELOPE OR GLYCOPROTEIN OR "E2")

L4 113 (BOVINE (A) VIRAL (A) DIARRHEA (A) VIRUS OR BVDV) (S) (HCV OR HEPATITIS (A) C) AND (CHIMER? OR ENVELOPE OR "E2" OR SUBSTITUT? OR REPLACE?)

(FILE 'HOME' ENTERED AT 10:36:09 ON 24 JAN 2005)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH' ENTERED AT 10:37:13 ON 24 JAN 2005

L1 306 S (PESTIVIRUS OR FLAVIVIRUS OR BOVINE (A) VIRAL (A) DIARRHEA (A
L2 36 S L1 AND (HEPATITIS (A) C OR HCV)
L3 20 DUP REM L2 (16 DUPLICATES REMOVED)
L4 113 S (BOVINE (A) VIRAL (A) DIARRHEA (A) VIRUS OR BVDV) (S) (HCV
L5 60 S L4 AND ("E2" OR ENVELOPE OR STRUCTURAL)
L6 26 DUP REM L5 (34 DUPLICATES REMOVED)
L7 23 S L6 NOT L2

L3 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2001:874590 CAPLUS
DN 136:15908
TI **Hepatitis C** virus (**HCV**) protease-dependent chimeric bovine viral diarrhea virus and uses in screening for anti-**HCV** agents
IN Hong, Zhi; Lai, Vicki C. H.; Lau, Johnson Y. N.
PA Schering Corporation, USA
SO U.S., 20 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 6326137	B1	20011204	US 1999-344456	19990625
PRAI US 1999-344456		19990625		

AB The invention provides a infectious, plaque-forming chimeric bovine viral diarrhea virus (BVDV), in which its protease Npro is replaced by **HCV** NS3 protease, to screen for a compound that inhibits the **HCV** protease. In particular, the invention discloses that the **chimeric pestivirus** comprises a **chimeric HCV-BVDV** genome wherein a **BVDV** protease **gene** is replaced with a **gene** encoding a functional **HCV** protease and each junction site recognized by the **BVDV** protease is replaced with a junction site recognized by an **HCV** protease. The invention also provides methods for propagating the chimeric virus in cell culture. The invention further relates to using the chimeric, infectious virus to screen for **HCV** NS3 inhibitor compds. in cell culture models or in animal models of viral infection.
RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD - ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 20 MEDLINE on STN DUPLICATE 2
AN 2002027972 MEDLINE
DN PubMed ID: 11483222
TI High-level expression of **hepatitis C** virus (**HCV**) **structural** proteins by a **chimeric HCV/BVDV** genome propagated as a **BVDV** pseudotype.
AU Nam J H; Bukh J; Purcell R H; Emerson S U
CS Hepatitis Viruses Section, Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Maryland 20892-0740, USA.
SO Journal of virological methods, (2001 Sep) 97 (1-2) 113-23.
Journal code: 8005839. ISSN: 0166-0934.
CY Netherlands
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 200205
ED Entered STN: 20020121
Last Updated on STN: 20020516
Entered Medline: 20020515
AB A **chimeric** cDNA genome was constructed in which the core, E1 and **E2 genes** of **hepatitis C** virus (**HCV**) replaced the core, E(rns), E1 and **E2 genes** of **bovine viral diarrhea virus** (**BVDV**). High levels of **HCV** structural proteins were expressed in a small number of human or bovine cells following

transfection with chimeric RNA. However, in one cell line, bovine embryonic trachea cells [EBTr(A)], the number of cells expressing **HCV** proteins increased to greater than 70% following serial passage of culture medium. These cells were persistently infected with a non-cytopathogenic BVDV helper virus. In these cells, the chimeric genome was packaged into infectious particles that accumulated in the culture medium at a titer as high as 10(7)-10(9) genome equivalents per ml. The virus particles were pseudotypes, because they were neutralized by anti-BVDV but not by anti-**HCV**.

L3 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:881339 CAPLUS
DN 134:52255
TI **Hepatitis C virus-bovine viral diarrhea virus chimeric genes** and uses
IN Nam, Jae-Hwan; Bukh, Jens; Emerson, Suzanne U.; Purcell, Robert H.
PA Government of the United States of America as represented by the Secretary, Department of Health and Human Services, USA
SO PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000075352	A2	20001214	WO 2000-US15527	20000602
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000053245	A5	20001228	AU 2000-53245	20000602
EP 1187927	A2	20020320	EP 2000-938165	20000602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI US 1999-137817P	P	19990604		
WO 2000-US15527	W	20000602		

AB The present invention relates to nucleic acid sequences which comprise the genomes of chimeric **hepatitis C** virus-bovine viral diarrhea viruses (**HCV**-BVDV). The invention also relates to the use of these chimeric nucleic acid sequences to produce chimeric virions in cells and the use of these chimeric virions in **HCV** antibody neutralization assays. BVDV structural genes (C, E1, or E2) are replaced with corresponding regions of the **HCV** genome. DNA vector constructs, RNA transcripts, encoded proteins, and host cells are also claimed. Transfection of 4 bovine cell lines derived from embryonic bovine trachea (EBTr) cells, with the **HCV**-BVDV chimeric virus and subsequent studies, are described. Antibody neutralization assays with infected chimpanzees is also described.

L3 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:881326 CAPLUS
DN 134:52274
TI Cloned genome of infectious **hepatitis C** virus of genotype 2a and its therapeutic uses
IN Yanagi, Masayuki; Bukh, Jens; Emerson, Suzanne U.; Purcell, Robert H.
PA Government of the United States of America as Represented by the

Secretary, Department of Health and Human Services, USA
SO PCT Int. Appl., 166 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000075338	A2	20001214	WO 2000-US15446	20000602
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1185664	A2	20020313	EP 2000-938146	20000602
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRAI US 1999-137693P	P	19990604		
WO 2000-US15446	W	20000602		

AB The present invention discloses a full-length cDNA cloned sequence which encodes infectious **hepatitis C** virus (**HCV**) of strain HC-J6CH, genotype 2a. In the final construct which encodes the consensus polyprotein of HC-J6CH, an XbaI site was eliminated by a silent substitution (A to G) at position 5494. The full-length cDNA clone was retransformed to select a single clone, and large-scale preparation of plasmid followed by complete sequence anal. The encoded polyprotein differs from those of infectious clones of genotypes 1a and 1b by .apprx.30%. Intrahepatic transfection of chimpanzee with transcribed RNA confirmed the infectivity of the cDNA clone. As **chimeric flaviviruses** with **substituted structural genes** have been useful in defining the biol. function of viral sequences or proteins, in analyzing immune responses, and in generating attenuated vaccine candidates, four **chimeric** viruses were generated between HC-J6CH genotype 2a and H77c genotype 1a. The sequence, and polypeptides encoded by all or part of the sequence have use in the development of vaccines and diagnostics for **HCV** and in the development of screening assays for the identification of antiviral agents for **HCV**.

L3 ANSWER 10 OF 20 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 3
AN 2000233246 EMBASE
TI Generation and characterization of a **hepatitis C** virus NS3 protease- dependent bovine vital diarrhea virus.
AU Lai V.C.H.; Zhong W.; Skelton A.; Ingravallo P.; Vassilev V.; Donis R.O.; Hong Z.; Lau J.Y.N.
CS Z. Hong, Department of Antiviral Therapy, Schering-Plough Research Institute, 2015 Galloping Hill Rd., Kenilworth, NJ 07033-0539, United States. zhi.hong@spcorp.com
SO Journal of Virology, (2000) 74/14 (6339-6347).
Refs: 51
ISSN: 0022-538X CODEN: JOVIAM
CY United States
DT Journal; Article
FS 004 Microbiology
LA English
SL English
AB Unique to **pestiviruses**, the N-terminal protein encoded by the

bovine viral diarrhea virus (**BVDV**) genome is a cysteine protease (Npro) responsible for a self-cleavage that releases the N terminus of the core protein (C). This unique protease is dispensable for viral replication, and its coding region can be replaced by a ubiquitin **gene** directly fused in frame to the core. To develop an antiviral assay that allows the assessment of anti- **hepatitis C** virus (**HCV**) NS3 protease inhibitors, a **chimeric BVDV** in which the coding region of Npro was replaced by that of an NS4A cofactor-tethered **HCV** NS3 protease domain was generated. This cofactor-tethered **HCV** protease domain was linked in frame to the core protein of **BVDV** through an **HCV** NS5A-NS5B junction site and mimicked the proteolytic function of Npro in the release of **BVDV** core for capsid assembly. A similar **chimeric** construct was built with an inactive **HCV** NS3 protease to serve as a control. Genomic RNA transcripts derived from both **chimeric** clones, P(H/B) (wild-type **HCV** NS3 protease) and P(H/B(SI39A)) (mutant **HCV** NS3 protease) were then transfected into bovine cells (MDBK). Only the RNA transcripts from the P(H/B) clone yielded viable viruses, whereas the mutant clone, P(H/B(SI39A)), failed to produce any signs of infection, suggesting that the unprocessed fusion protein rendered the **BVDV** core protein defective in capsid assembly. Like the wild-type **BVDV** (NADL), the **chimeric** virus was cytopathic and formed plaques on the cell monolayer. Sequence and biochemical analyses confirmed the identity of the **chimeric** virus and further revealed variant viruses due to growth adaptation. Growth analysis revealed comparable replication kinetics between the wild- type and the **chimeric** **BVDVs**. Finally, to assess the genetic stability of the **chimeric** virus, an Npro-null **BVDV** (**BVDV**-Npro in which the entire Npro coding region was deleted) was produced. Although cytopathic, **BVDV**-Npro was highly defective in viral replication and growth, a finding consistent with the observed stability of the **chimeric** virus after serial passages.

L3 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1999:708634 CAPLUS
DN 131:350241
TI Chimeras of **hepatitis c** virus and bovine viral diarrhea virus
IN Rice, Charles M.; Frolov, Ilya; Mcbride, M. Scott
PA Washington University, USA
SO PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9955366	A1	19991104	WO 1999-US8850	19990423
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2330086	AA	19991104	CA 1999-2330086	19990423
	AU 9937571	A1	19991116	AU 1999-37571	19990423
	EP 1071454	A1	20010131	EP 1999-919976	19990423

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRAI US 1998-82964P P 19980424
WO 1999-US8850 W 19990423
AB Disclosed is a polynucleotide comprising a chimeric viral RNA which contains: a 5' nontranslated region (5' NTR), an open reading frame (ORF) region, and a 3' nontranslated region (3' NTR) wherein at least one of said regions is chimeric. The chimeric region comprises a first nucleotide sequence from a pestivirus in operable linkage with a heterologous nucleotide sequence. The chimeric viral RNA is replication-competent. Preferably the pestivirus sequence is from a bovine viral diarrhea virus and the heterologous nucleotide sequence is from a **hepatitis C** virus. Also disclosed are a method for identifying compds. having antiviral activity against **hepatitis C** virus, a genetically-engineered chimeric RNA virus and a vaccine against bovine viral diarrhea virus.
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 12 OF 20 EMBASE COPYRIGHT 2005 ELSEVIER INC. ALL RIGHTS RESERVED.
on STN DUPLICATE 4
AN 1999245784 EMBASE
TI Functional analysis of cell surface-expressed **hepatitis C** virus E2 glycoprotein.
AU Flint M.; Thomas J.M.; Maidens C.M.; Shotton C.; Levy S.; Barclay W.S.; McKeating J.A.
CS J.A. McKeating, Sch. of Animal/Microbial Sciences, University of Reading, Whiteknights, P.O. Box 228, Reading RG6 6AJ, United Kingdom. j.a.mckeating@reading.ac.uk
SO Journal of Virology, (1999) 73/8 (6782-6790).
Refs: 52
ISSN: 0022-538X CODEN: JOVIAM
CY United States
DT Journal; Article
FS 004 Microbiology
LA English
SL English
AB **Hepatitis C** virus (**HCV**) **glycoproteins** E1 and **E2**, when expressed in eukaryotic cells, are retained in the endoplasmic reticulum (ER). C-terminal truncation of **E2** at residue 661 or 715 (position on the polyprotein) leads to secretion, consistent with deletion of a proposed hydrophobic transmembrane anchor sequence. We demonstrate cell surface expression of a chimetic **glycoprotein** consisting of **E2** residues 384 to 661 fused to the transmembrane and cytoplasmic domains of influenza A virus hemagglutinin (HA), termed E2661-HA(TMCT). The E2661-HA(TMCT) **chimeric glycoprotein** was able to bind a number of conformation-dependent monoclonal antibodies and a recombinant soluble form of CD81, suggesting that it was folded in a manner comparable to 'native' **E2**. Furthermore, cell surface-expressed E2661-HA(TMCT), demonstrated pH-dependent changes in antigen conformation, consistent with an acid-mediated fusion mechanism. However, E2661-HA(TMCT) was unable to induce cell fusion of CD81-positive HEK cells after neutral- or low-pH treatment. We propose that a stretch of conserved, hydrophobic amino acids within the E1 **glycoprotein**, displaying similarities to **flavivirus** and paramyxovirus fusion peptides, may constitute the **HCV** fusion peptide. We demonstrate that influenza virus can incorporate E2661-HA(TMCT) into particles and discuss experiments to address the relevance of the **E2**-CD81 interaction for **HCV** attachment and entry.

L3 ANSWER 14 OF 20 CAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:608537 CAPLUS
DN 129:215717
TI Chimeric flavivirus vaccines
IN Chambers, Thomas J.; Monath, Thomas P.; Guirakhoo, Farshad
PA Oravax, Inc., USA; St. Louis University
SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9837911	A1	19980903	WO 1998-US3894	19980302
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2282790	AA	19980903	CA 1998-2282790	19980302
	AU 9864431	A1	19980918	AU 1998-64431	19980302
	AU 740961	B2	20011115		
	EP 977587	A1	20000209	EP 1998-910103	19980302
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9807873	A	20000321	BR 1998-7873	19980302
	NZ 337522	A	20010223	NZ 1998-337522	19980302
	JP 2001514622	T2	20010911	JP 1998-537907	19980302
	RU 2209082	C2	20030727	RU 1999-120696	19980302
	NO 9904185	A	19991027	NO 1999-4185	19990827
	MX 9907949	A	20000831	MX 1999-7949	19990827
	US 6696281	B1	20040224	US 1999-452638	19991201
	US 2004223979	A1	20041111	US 2003-701122	20031104
PRAI	US 1997-807445	A2	19970228		
	US 1998-7664	A	19980115		
	WO 1998-US3894	W	19980302		
	US 1998-121587	A2	19980723		
	US 1999-452638	A1	19991201		

AB A chimeric live, infectious, attenuated virus, containing a yellow fever virus, in which the nucleotide sequence for a prM-E protein is either deleted, truncated, or mutated, so that functional prM-E protein is not expressed, and integrated into the genome of the yellow fever virus, a nucleotide sequence encoding a prM-E protein of a second, different flavivirus, so that the prM-E protein of the second flavivirus is expressed. The prM-E protein of the second flavivirus is mutated that prevents prM cleavage to produce M protein. The second flavivirus is selected from Japanese encephalitis virus, Murray Valley encephalitis virus, St. Louis encephalitis virus, West Nile virus, Tick-borne encephalitis virus, **hepatitis C** virus, Kunjin virus, Central European encephalitis virus, Russian Spring-Summer encephalitis virus, Powassan virus, Kyasanur Forest disease virus, and Omsk hemorrhagic fever virus.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 20 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation.

on STN
AN 96:919595 SCISEARCH
GA The Genuine Article (R) Number: VX292
TI Authentic and chimeric full-length genomic cDNA clones of bovine viral diarrhea virus that yield infectious transcripts
AU Vassilev V B; Collett M S; Donis R O (Reprint)
CS UNIV NEBRASKA, DEPT VET & BIOMED SCI, LINCOLN, NE 68583 (Reprint); UNIV NEBRASKA, DEPT VET & BIOMED SCI, LINCOLN, NE 68583; VIROPHARMA, MALVERN, PA 19355
CYA USA
SO JOURNAL OF VIROLOGY, (JAN 1997) Vol. 71, No. 1, pp. 471-478.
Publisher: AMER SOC MICROBIOLOGY, 1325 MASSACHUSETTS AVENUE, NW, WASHINGTON, DC 20005-4171.
ISSN: 0022-538X.
DT Article; Journal
FS LIFE
LA English
REC Reference Count: 58
ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS
AB **Bovine viral diarrhea virus** (
BVDV) is the most insidious and devastating viral pathogen of cattle in the United States. Disease control approaches must be based on detailed knowledge of virus biology. To develop reverse-genetic systems to study the molecular biology of the virus, we first constructed a plasmid containing the entire genome of **BVDV** cloned as cDNA.
Subsequently, we showed that infectious **BVDV** eas produced by cells transfected with uncapped RNA transcribed in vitro from the cDNA done. This result defined functional 5' and 3' termini in viral genomic RNA and established the biological importance of the proposed internal ribosome entry site element in the 5' untranslated region of the viral genome. **BVDV** rescued from the infectious cDNA clone has an in vitro phenotype similar to that of the wild-type parent, the National Animal Disease Laboratory strain of **BVDV**. A deletion of a single codon in the full-length genomic **BVDV** cDNA clone, encoding glutamic acid at position 1600, gave rise to sequence-tagged virus easily identified by restriction fragment length polymorphism analysis of reverse transcription-PCR amplicons, Suitability of the molecular clone of **BVDV** for genomic manipulations was shown by **substitution** of the major **envelope glycoprotein E2**/gp53 with that of the Singer strain, giving rise to a **chimeric** virus. The predicted change in antigenic structure of the **chimeric** virus could be readily identified with strain-specific monoclonal antibodies by neutralization and immunofluorescence assays. Immediate applications of this system include development of safe and effective live vaccine strains possessing predetermined defined attenuating mutations.

L7 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:722728 CAPLUS
DN 141:242027
TI Modified viral particles with immunogenic properties and uses thereof as vaccines
IN Cham, Bill E.; Maltais, Jo-Ann B.
PA Australia
SO U.S. Pat. Appl. Publ., 58 pp., Cont.-in-part of U.S. Ser. No. 311,679.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004170649	A1	20040902	US 2003-601656	20030620
	WO 2001045718	A1	20010628	WO 2000-AU1603	20001228
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	WO 2002000266	A2	20020103	WO 2001-IB1099	20010621
	WO 2002000266	A3	20020328		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 2003119782	A1	20030626	US 2002-311679	20021218
PRAI	AU 2000-8469	A	20000629		
	WO 2000-AU1603	A	20001228		
	WO 2001-IB1099	W	20010621		
	US 2002-390066P	P	20020620		
	US 2002-311679	A2	20021218		
	AU 1999-4866	A	19991223		

AB The disclosed invention relates to a method for reducing the occurrence and severity of infectious diseases, especially infectious diseases in which lipid-containing infectious organisms are found in biol. fluids, such as blood. The invention employs solvents useful for extracting lipids from the lipid-containing infectious organism, thereby reducing the infectivity of the infectious organism. The invention uses optimal solvent systems such that the lipid **envelope** around the viral particle is dissolved while the viral particle remains intact, resulting in a modified viral particle. The invention also provides an autologous vaccine composition, comprising a lipid-containing infectious organism, treated with solvents to reduce the lipid content of the infectious organism, combined with a pharmaceutically acceptable carrier. The presented examples relate to the delipidation of serum that produces duck hepatitis B virus (DHBV) with reduced infectivity and use of the delipidated DHBV-pos. serum as a vaccine to prevent DHBV infection; delipidation of cattle pestivirus (**bovine viral diarrhea virus**, **BVDV**) as a

model for **hepatitis C** and use of the treated **BVDV** preparation as vaccine in cattle; and use of delipidated SIV to induce SIV-specific immune response in mice, as a model for a new auto-vaccination strategy against lentiviral infection. The present invention further provides a simple, inexpensive, and easy to use kit for delipidating fluids and for delipidation of lipid-containing organisms in a fluid.

L7 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:420336 CAPLUS
DN 141:155687
TI Expression and purification of bovine viral diarrhea virus Erns recombinant protein, antibodies production and characterization
AU Deliu, Alina-Mihaela; Lazar, Catalin; Branza-Nichita, Norica
CS Institute of Biochemistry, Bucharest, 77700/17, Rom.
SO Romanian Journal of Biochemistry (2003), Volume Date 2002, 39(1-2), 13-19
CODEN: RJBOAR; ISSN: 1582-3318
PB Editura Academiei Romane
DT Journal
LA English
AB **Bovine viral diarrhea virus** (**BVDV**) is currently used as a surrogate model for **hepatitis C** virus (**HCV**) which dets. **hepatitis C** in humans. Both viruses belong to the same family of Flaviviridae and share similar genetic organization and mol. properties. They contain a pos. stranded RNA that is translated from a single open reading frame into the viral polyprotein. The polyprotein is co- and post-translationally processed by a mixture of viral and host cell proteases, resulting in the mature **structural** (**envelope**) and nonstructural viral proteins. **BVDV envelope** contains three highly glycosylated proteins: Erns, E1 and **E2**, the first of which being absent in **HCV**. Therefore, characterization of this protein at both mol. and functional level is necessary to understand its role in virus infectivity and to validate **BVDV** as a good model for **HCV**. The anti-Erns antibodies are important tools in studying the biosynthesis, maturation, subcellular localization and function of the Erns protein. In this study the authors describe the production and characterization of anti-Erns polyclonal antibodies and their ability to recognize the Erns protein synthesized in different expression systems. The Erns protein was obtained in E. coli after transformation of bacteria with appropriate expression plasmids. Following different purification steps the pure protein was injected into rabbits according to a standard immunization schedule. Evaluation of the immunogenicity of Erns in rabbits revealed its ability to elicit humoral immune response in these animals. The rabbit antiserum raised against the recombinant Erns was able to recognize both the unglycosylated protein produced in E. coli and the highly glycosylated form expressed in mammalian cells. The antiserum was also able to recognize the Erns protein with altered glycosylation pattern, synthesized in the presence of the endoplasmic reticulum α-glucosidase inhibitor N-Bu deoxynojirimycin. Thus, the rabbit anti-Erns antiserum reported here would be very useful in the mol. and functional characterization of the Erns glycoprotein.
RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 22 OF 23 SCISEARCH COPYRIGHT (c) 2005 The Thomson Corporation. on STN
AN 1998:850742 SCISEARCH
GA The Genuine Article (R) Number: 134XA
TI Cis-acting RNA elements required for replication of **bovine**

viral diarrhea virus hepatitis
C virus 5' nontranslated region **chimeras**

AU Frolov I; McBride M S; Rice C M (Reprint)
CS WASHINGTON UNIV, SCH MED, DEPT MOL MICROBIOL, CAMPUS BOX 8230, 660 S EUCLID AVE, ST LOUIS, MO 63110 (Reprint); WASHINGTON UNIV, SCH MED, DEPT MOL MICROBIOL, ST LOUIS, MO 63110
CYA USA

SO RNA-A PUBLICATION OF THE RNA SOCIETY, (NOV 1998) Vol. 4, No. 11, pp. 1418-1435.
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DT Article; Journal
FS LIFE
LA English